



# UNITED STATES PATENT AND TRADEMARK OFFICE

ms

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/807,957	03/24/2004	Wen Zhao	PUS1699 (1578.800)	4088
44208	7590	10/06/2006	EXAMINER	
DOCKET CLERK			WENDELL, ANDREW	
PO BOX 12608			ART UNIT	
DALLAS, TX 75225			PAPER NUMBER	
			2618	

DATE MAILED: 10/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/807,957		ZHAO ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Andrew Wendell		2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on 24 March 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-32 and 35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Priority*

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Canada on 3/24/2003. It is noted, however, that applicant has not filed a certified copy of the foreign application PCT/CA03/00420 as required by 35 U.S.C. 119(b).

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-32 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park et al. (WO 00/08706) in view of Ue et al. (US Pat# 6,487,394).

Regarding claim 17, Park's device for controlling initial transmission power of forward link channel in mobile communications system teaches a system for controlling transmit power of a forward link signal in a communications network (Page 2 lines 15-23), the system comprising a mobile device MS (Fig. 2), the mobile device adapted to receive a first signal from a basestation 212 (Fig. 2); evaluate a signal the first signal 214 (Fig. 2); and transmit information about the received signal to the basestation 216 (Fig. 2); and the basestation BS (Fig. 2), the basestation being adapted to send the first signal with a first signal transmit power 212 (Fig. 2); receive the information about the received signal from the mobile device 216 (Fig. 2); and set the transmit power of the

Art Unit: 2618

forward link signal based on the information about the received signal and the first signal transmit power 216-218 (Fig. 2), the setting of the transmit power in the basestation including estimating a value of a signal component of the first signal based on the information about the received signal to noise ratio (Page 14 line 3-Page 15 line 7); determining a desired value for the signal component (Page 14 line 3-Page 15 line 7); and setting the transmit power of the forward link signal by adding the difference between the desired signal component value and the estimated signal component value to the first signal transmit power (Page 14 line 3-Page 15 line 7). Park fails to clearly teach evaluating a signal to noise ratio.

Ue's radio communication device of controlling transmission rate teaches a system for controlling transmit power of a forward link signal in a communications network (Col. 1 line 58-Col. 2 line 4), the system comprising a mobile device (Fig. 2), the mobile device adapted to receive a first signal from a basestation (Fig. 8); evaluate a signal to noise ratio of the first signal (Col. 3 line 66-Col. 4 line 27 and Col. 5 lines 31-48); and transmit information about the received signal to noise ratio to the basestation (Fig. 8, Col. 5 lines 31-48); and the basestation, the basestation being adapted to send the first signal with a first signal transmit power (Fig. 8, Col. 5 lines 31-48); receive the information about the received signal to noise ratio from the mobile device (Fig. 8 and Fig. 12); and set the transmit power of the forward link signal based on the information about the received signal to noise ratio and the first signal transmit power (Fig. 12 and Col. 6 line 59-Col. 7 line 8), the setting of the transmit power in the basestation including estimating a value of a signal component of the first signal based on the

Art Unit: 2618

information about the received signal to noise ratio (Fig. 12 and Col. 6 line 59-Col. 7 line 8); determining a desired value for the signal component (Fig. 12 and Col. 6 line 59-Col. 7 line 8).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate evaluating a signal to noise ratio as taught by Ue into Park's device for controlling initial transmission power of forward link channel in mobile communications system in order to reduce interference and increase performance (Col. 1 lines 46-55).

Regarding claim 18, the combination including Park teaches wherein the first signal is a pilot signal 212 (Fig. 2).

Regarding claim 19, the combination including Park teaches wherein the transmitting of information from the mobile device is performed over an access channel 216 (Fig. 2).

Regarding claim 20, the combination including Park teaches wherein the forward link signal is a preamble on a traffic channel sent from the basestation to the mobile device (Fig. 1 and 2).

Regarding claim 21, the combination including Park teaches wherein the setting of the transmit power in the basestation is performed during a traffic initialization period between the basestation and the mobile device (Page 2 lines 18-23 and Page 14 line 3-Page 15 line 7).

Regarding claim 22, the combination including Park teaches wherein the evaluating of the first signal in the mobile device is performed on a first signal component (Page 14 line 3-Page 15 line 7).

Regarding claim 23, the combination including Park teaches wherein the first signal component is the  $E_c/I_o$  of the first signal (Page 14 line 3-Page 15 line 7).

Regarding claim 24, the combination including Park teaches wherein the determining the desired signal component value is based on a pre-optimized preamble  $E_c/I_o$  value (Page 14 line 3-Page 15 line 7).

Regarding claim 25, the combination including Park teaches wherein the determining the desired signal component value is based on the mobile device (Page 14 line 3-Page 15 line 7).

Regarding claim 26, the combination including Park teaches wherein the desired signal component value is reported to the basestation during the transmitting of information step (Fig. 2).

Regarding claim 27, the combination including Ue teaches wherein the desired signal component value is limited by a threshold value, whereby if the value based on the mobile device exceeds the threshold value, the desired signal component value is set to the threshold value (Fig. 12).

Regarding claim 28, the combination including Park teaches wherein the desired signal component value is selected from a predetermined value at the basestation and a value received from the mobile device (Page 14 line 3-Page 15 line 7).

Regarding claim 29, the combination including Park teaches wherein the selecting is performed based on the higher value between the predetermined value at the basestation and the value received from the mobile device (Page 14 line 3-Page 15 line 7).

Regarding claim 30, the combination including Ue teaches wherein the selecting is limited by a threshold value, whereby if the value received from the mobile device exceeds the threshold value, the selecting step uses the threshold value (Fig. 12).

Regarding claim 31, the combination including Park teaches wherein the setting further includes adding an offset parameter to the transmit power of the forward link signal (Page 14 line 3-Page 15 line 7).

Regarding claim 32, the combination including Park teaches wherein the value of the offset parameter is between 0 and 6 dB (Page 14 line 3-Page 15 line 7, the value could fall in that range in a CDMA network).

Regarding claim 35, the combination including Park teaches wherein the communications network is a CDMA network (Page 10 lines 8-19).

Regarding claim 1, method claim 1 is rejected for the same reason as system claim 17 since the recited elements would perform the claimed steps.

Regarding claim 2, method claim 2 is rejected for the same reason as system claim 21 since the recited elements would perform the claimed steps.

Regarding claim 3, method claim 3 is rejected for the same reason as system claim 20 since the recited elements would perform the claimed steps.



Art Unit: 2618

Regarding claim 4, method claim 4 is rejected for the same reason as system claim 18 since the recited elements would perform the claimed steps.

Regarding claim 5, method claim 5 is rejected for the same reason as system claim 19 since the recited elements would perform the claimed steps.

Regarding claim 6, method claim 6 is rejected for the same reason as system claim 24 since the recited elements would perform the claimed steps.

Regarding claim 7, method claim 7 is rejected for the same reason as system claim 25 since the recited elements would perform the claimed steps.

Regarding claim 8, method claim 8 is rejected for the same reason as system claim 26 since the recited elements would perform the claimed steps.

Regarding claim 9, method claim 9 is rejected for the same reason as system claim 27 since the recited elements would perform the claimed steps.

Regarding claim 10, method claim 10 is rejected for the same reason as system claim 28 since the recited elements would perform the claimed steps.

Regarding claim 11, method claim 11 is rejected for the same reason as system claim 29 since the recited elements would perform the claimed steps.

Regarding claim 12, method claim 12 is rejected for the same reason as system claim 30 since the recited elements would perform the claimed steps.

Regarding claim 13, method claim 13 is rejected for the same reason as system claim 31 since the recited elements would perform the claimed steps.

Regarding claim 14, method claim 14 is rejected for the same reason as system claim 32 since the recited elements would perform the claimed steps.



Art Unit: 2618

Regarding claim 15, method claim 15 is rejected for the same reason as system claim 23 since the recited elements would perform the claimed steps.

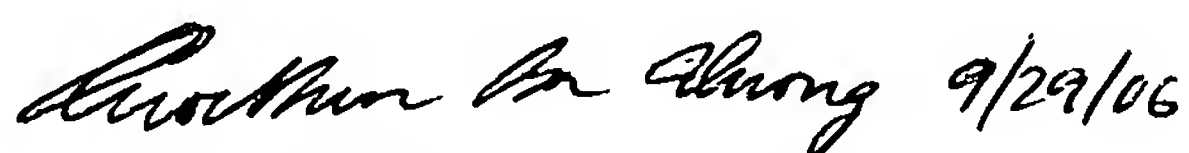
Regarding claim 16, method claim 16 is rejected for the same reason as system claim 35 since the recited elements would perform the claimed steps.

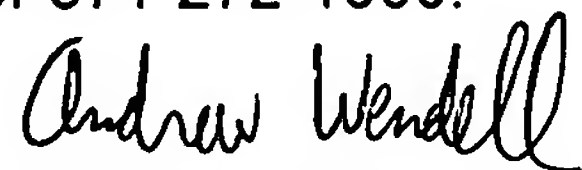
### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Wendell whose telephone number is 571-272-0557. The examiner can normally be reached on 7:30-5 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on 571-272-7882. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
QUOCHIEN B. VUONG  
PRIMARY EXAMINER

  
Andrew Wendell  
Examiner  
Art Unit 2618